世界建筑 201509 | Sustainability in the Mountains: Winter Games and Beyond | 山地建设的可持续性：冬奥会及其他

都灵2006年冬奥会的4个场馆
Four Venues of the Torino 2006 Winter Olympic Games

达维德·韦罗/Davide Vero

冰球馆，都灵，意大利
Ice Hockey Arena, Torino, Italy, 2005

这个新的大型城市空间取代了为 1933 年利托里奥运动会而建的市体育场、马拉托纳塔和纪念游泳池。

在原有的场地上，新的冬奥会工程将新的冰球场与保留的遗产建筑连在一起，并重新设计了巨大的军事广场公园南缘作为新的体育基础设施。那里最近还新添了一座游泳馆。这些建筑不仅在视觉上是相互联系的，而更重要的是在尺度和象征意义上。由矶崎新设计的冰球场比例也用在了旁边的赛场上。同时，冰球场还与奥林匹克体育场等高，形成了地平高度不同的大盒子。入口位于首层，地下层（–7.50m）是冰球场地，首层上下均设有坐席。

这一方案出自对人流的分析和赛后再利用的要求。为满足多功能使用，坐席和天花还是可移动的。

室内的动态让室外连续的钢挂板和水平窗构成的立面更有韵律。这个金属表皮表达的概念是从混凝土和玻璃的基座中升起的长方形盒子。室外的城市空间为新老建筑提供了场地，而冰球馆前的空间是广场和公园。□（尚晋 译）

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This big new urban space has become a synonym of the transformation of an area previously occupied by the former Municipal Stadium, the Maratona Tower, and by the Monumental Swimming Pool, which were built for the 1933 Lictorian Games.

The new project for the Winter Olympic Games connected the new Ice Hockey Arena with existing heritage buildings, and redesigned the southern edge of the huge Piazza d'Armi park with new sports infrastructure, recently improved by a new Swimming Palace.The relationship between these buildings is not only visual, but is first and foremost dimensional and symbolic. The same proportions of the Arena, designed by Arata Isozaki, are used in the field across from the venue; similarly, the Arena keeps the same height as the Olympic Stadium, which creates a multilayered building. On the ground floor, the entrances are situated. At the lowered level (-7.5 meters) the ice hockey rink is placed, while seating is located above and below the ground floor.

This design solution originated from an analysis of the movements of people, and from a desire for post-Olympic reuse; in particular, a multi-purpose use is granted by the movable bleachers and by the ceiling.

This internal dynamism enhances the external façade, organized as a pattern of steel panels, randomly interrupted by horizontal windows. This metal shell highlights the concept of a rectangular box emerging from a base made of concrete and glass. Outside, the urban space creates an interface for the new and the old buildings; in front of the Arena, this space becomes a plaza and a park.□

项目信息/Credits and Data

功能/Purpose: 冰球馆/Ice Hockey Arena
主持建筑师/Principal Architect: 矶崎新/Arata Isozaki
设计团队/Project Team: Arata Isozaki & Associates Co. Ltd., ARCHA s.p.a., ARUP s.r.l., Giuseppe Gasparo Amaro, Marco Brizio
成本/Approx. Cost: € 88,000,000

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1 外景/Exterior view
2 内景/Interior view
3广场/Plaza


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奥运村，都灵，意大利
Olympic Village, Torino, Italy, 2006

这座新的运动员村改变了都灵城市南郊的一整片区域。它的旁边是火车站，后面是原来的菲亚特—灵格托厂房。1980 年代伦佐·皮亚诺对其进行过翻新。项目的布局在现有的 MOI（都灵原蔬菜批发市场）理性主义结构上创造出一个新的枢纽。它既有历史和象征价值，又包含工业遗产的要素，还是运动员和市民的服务设施。

整个地区的设计保护了城市肌理的连续性，通过延续 MOI 的格网形成了具有共通性的平面。而来自欧洲各地的数十位设计师以形式和类别上多元化的建筑语汇设计了新建筑。他们主要的目标就是创造出独一无二的街区——不仅为奥运赛会，更重要的是考虑未来的使用。

改造中最明显的要素是步行桥的红色支撑拱，这是通向城市的大门、连接运动员村和林戈托的构筑物。任何一个变化都会由景观、建筑和符号的设计与过去联系在一起。□（尚晋 译）

The new athletes' village transformed an entire portion of the city. The project converted an area located in the southern outskirts of Torino, adjacent to a railway station and facing the former FIAT-Lingotto factory, which was rehabilitated by Renzo Piano in the 1980s. This project has created a new hub, based on the existing rationalist structure of the MOI (Torino's former wholesale vegetable market). The project has also assumed a historic and symbolic value, becoming an element of industrial heritage and also a service for athletes and citizens.

The continuity with the urban fabric was provided by a design of the entire area, which extended the grid produced by the MOI and rendered a shared plan. Several teams of designers from all over Europe designed the new houses, producing a diversified aggregation of architectural languages in various forms and types. Their main goal was to create a unique neighbourhood not only for the Olympic events but, most importantly, for post-Olympic use.

The most visible element of this transformation is the red supporting archway of the pedestrian bridge, a gateway to the city and a structure that links the athletes' village with the Lingotto factory. Changes should always link with the past, especially in the design of landscape, buildings and symbols.□

项目信息/Credits and Data

功能/Purpose: 城市中的运动员村、服务中心和步行桥/Athletes' urban village, service center and pedestrian bridge

主持建筑师/Principal Architect: Benedetto Camerana

设计团队/Project Team: AIA architectes, Studio Derossi Associati, Hugh Dutton Associés, Faber Maunsell Ltd., Studio Inarco; Angela Maccianti, Carlo Perego di Cremnago, Agostino Politi, PRODIM s.r.l., Giorgio Rosental, Studio Steidle und Partners

成本/Approx. Cost: € 140,000,000

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1-4 都灵冬奥会奥运村/Olympic Village, Torino（图片来源/Credits：Studio Rosental and Davide Vero）

中央运动员村，巴多内基亚，意大利
Medail Athletes' Village, Bardonecchia, Italy, 2006

中央运动员村位于海拔 1312m 的巴多内基亚，是参加各项奥运赛事的运动员的居住地。这座建筑原来是吉诺·莱维—蒙塔尔奇尼 1937–1939 年间设计的日光浴疗养院，如今成了比赛的起点。整体布局呈希腊回纹式，建筑群由带有水平线和硕大体块的 6 个要素组成，中间是围合庭院。

这个原先的日光浴疗养院是典型的现代主义建筑，也是意大利法西斯政权的一座标志性建筑。它的造型和材料受到项目的象征意义以及当时经济萧条的影响，因此所用的砖、石、木等材料都产自本地。随后几年中，建筑先被废弃，后又被改造。空间、材料、色彩和建筑模式都发生了变化。

该项目的意图是恢复建筑最初的语汇——包括新建筑和原建筑群——以便创造更多的宿舍空间。

依据文献的复原能为场地的复原和更新提供设计。研究不但揭示出原始的关系和模式，还延续了与增建部分的对话。□（尚晋 译）

The Medail Athletes' Village is located in Bardonecchia at an altitude of 1312 meters, and it was used to house the athletes who took part in various competitions during the Olympic Games. The central building, which had been originally designed by Gino Levi-Montalcini and built between 1937 and 1939 as a heliotherapy colony, serves as the village's starting point. The layout is structured following a Greek fret, and the complex is composed of six elements, characterized by horizontal lines and massive wings, and organised around a central courtyard.

The former sun therapy centre originally represented an important example of Modernist Architecture, and it served as a landmark of Italian architecture during the Fascist Regime. The forms and the materials were influenced by the symbolic intentions of the project and also by the economic scarcity of the period. As a consequence, the employed materials, such as the bricks, stone and wood, were locally sourced. In the following years the complex faced abandonment and some transformation, as well as a change in spaces, materials, colours, and architectural forms.

The purpose of this project aimed at restoring the original language of the building, and to create additional accommodations in both existing and new structures.

Thanks to a philological approach an integration between restoration and new functions has been possible, bringing to light the original architectural characters, with a continuous dialogue with the new parts. □

项目信息/Credits and Data

位置/Location: 苏萨谷，巴多内基亚/Bardonecchia, Susa Valley

功能/Purpose: 滑雪运动员村（滑板、俯式、自由式和小雪橇）/Athletes' mountain village (snowboard, skeleton, freestyle and luge)

主持建筑师/Principal Architect: Sintecna s.r.l.

设计团队/Project Team: Paolo Napoli, Consuelo Orza, Base Engineering s.r.l., Loredana Dionigio, Maria Pia Orsini, Studio Pession Associato, Tetra Studio Architetti Associati, EL s.r.l., Metec s.r.l., Impro s.r.l., Golden Associates s.r.l., Studio Abacus s.a.s.

执行设计/Executive Design: Studio A.S. Architetti Associati

成本/Approx. Cost: € 28,000,000

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1 原有的日光浴疗养院/The former sun therapy center 2-4 中央运动员村/Medail Athletes' Village（1-4 图片来源/Credits：Studio A.S.）

滑雪道，普拉杰拉托，意大利
Ski Jumps, Pragelato, Italy, 2005

滑雪道的设计不但十分复杂而且困难重重。经过一番缜密的思考，都灵 2006 年奥运组委会选择了基索内谷海拔 1518m 的普拉杰拉托村。这个战略性的选择兼顾了地理位置和形态因素。设计有意将 5 条滑道分成两组。一组包含两条大型赛用滑道，其余 3 条另一组，供训练用。这一独具匠心的做法是为了保护当地茂密的落叶松林，而这也成了一道优美的背景和运动员的天然挡风屏。

考虑到奥运规则，对山侧的轮廓加以保留，并将赛场尽可能地隐蔽起来。同时还要对运动员的竞技行为进行空气动力学分析，保证严格精确。

大小起伏的轮廓减少了土方挖掘。这一原则也被用在其他地方，比如运动员的热身区、出发区、裁判台和酒店。布局上还考虑了对基索内河的保护。□（尚晋 译）

The realization of trampolines for ski jump is both complex and problematic. After a series of careful considerations, the 2006 Olympics Committee chose Pragelato, a village in the Chisone Valley at an altitude of 1518 meters. It was a strategic choice, both for its geographical location and for some morphological aspects. The project purposely grouped the five trampolines into two blocks, a first block consists of the two large competition ski jumps, while a second block the remaining three, which were used for training. This operation helped to curb further deforestation of the area, which is extensively covered in larches. These trees create scenery and a natural barrier for the athletes against the wind.

The intent to preserve the outline of the mountainside, which was done in order to camouflage the site as much as possible, had to come to terms with the rules and regulations of the Olympic standards, which required strict precision and an analysis of the aerodynamic behaviour of the athletes.

The different overlapping outlines of the complex attempted to reduce excavations and earth-moving; this same principle was adopted in the other construction works, such as the warm-up area for the athletes, the starting area, the judges tower and the hotel. The layout took into consideration the Chisone stream as an asset to preserve and protect.□

项目信息/Credits and Data

位置/ Location: 基索内谷，普拉杰拉托/Pragelato, Chisone Valley

功能/Purpose: 滑雪道及设施/ Trampolines and services for ski jump

主持工程师/Principal Engineers: Studio Tecnico Diego Pedrolli

设计团队/Project Team: Pietro Vanzo, Wolfgang Happle, Soc. Sintecna s.r.l., Giorgio Marè, Stefano Seita, Marco Zocco/AT Studio Associato

成本/Approx. Cost: € 35,000,000

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1 远景/Distant view
2 滑雪道/Ski jumps
（1.2 图片来源/Credits：AT Studio Associato）